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**child
nutrition in
action**



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child nutrition in action

By Richard Lyng



IT WAS ONLY A YEAR and a half ago when President Nixon committed himself and the Nation "to put an end to hunger in America itself for all time."

In the relatively short time since then, the Nation has advanced well along the road to doing this. A new agency, the Food and Nutrition Service, has been established within USDA

to deal solely with the administration of Federal food programs.

A White House Conference on Food, Nutrition and Health has been held in Washington, conducted under the able leadership of Dr. Jean Mayer, internationally known Harvard professor of nutrition. From this Conference stemmed literally hundreds of recommendations that directly or in-

directly said that every American family, regardless of its income or where it lives, is entitled to an adequate, nutritious diet.

Recommendations on child feeding from several Conference panels have led to the new legislation that President Nixon signed into law on May 14, 1970—emphasizing that the school lunch program must be available to

children in all schools, particularly to needy children. The President pointed out the great importance of this law, P.L. 91-248, at the time he signed it:

"The child nutrition programs—school lunch, school breakfast, and food programs in day care centers and summer camps—can have an important impact on the life of those who participate in them. Because the student who is well fed is more attentive and learns better, improved nutrition can help children break out of the cycle of poverty. This legislation I am signing will do much to improve these programs."

The panel recommendations that the new law is based upon were well-studied, good, and helpful. They not only provided ideas and suggestions for all of us involved in child food services—Federal, State and local—but also lent important focus and urgency to the fact that this Nation can and must ensure every child his right to eat well.

In the main, all of the recommendations on child feeding from the several panels were directed toward the goal of every child getting nutritious meals in school and non-school group activities, whether or not his family can pay for them. The recommendations boil down to about six main concerns:

- Fair and equitable methods for determining need.
- New methods and efficiencies to get food service to children in older schools and remote locations.
- Resources to meet the need.
- New research into delivery systems for children.
- Nutrition education as an integral part of food service for children.
- Increased in-service training for school food service workers.

The Congress in P.L. 91-248 provided the necessary authorities to translate those recommendations into action, through significant improvements in the National School Lunch and Child Nutrition Acts. The new law emphasizes that the school-lunch program must be available to children in all schools—and clearly sets priority on reaching needy children.

(For a digest of the provisions of the new law, see page 6.)

To put the new law into action, we have revised program regulations.

These new regulations reflect the views of everyone interested in the child nutrition programs. The proposed regulations were published in the July 17 Federal Register, and comments and suggestions were invited.

This is the first time that school lunch regulations have been published in "proposed" form to allow comment. As a result, the final regulations represent the best thinking of all who have an interest in child nutrition.

We received comments from more than a hundred persons and organizations, which we carefully studied and considered, incorporating many of them into the final form of the regulations. These went to school administrators in time for the opening of school.

Along with the new authorities, increased Federal funds are being made available, too. The total budget for all child nutrition programs for this fiscal year—including commodities—is at the \$900 million mark, compared to \$685 million last year. Virtually all of the increase will be passed along to the States to enable them to:

- Provide an average of 5 cents per lunch for *all* lunches served, regardless of whether they are served free, at reduced price, or at the regular price.
- Provide up to an *additional* 30 cents average for free and lower priced lunches served to a daily average of 6.6 million children from needy families. This possible total of 35 cents in cash would be supplemented by an estimated 7 cents worth of donated commodities for a possible total average Federal contribution of 42 cents for each free or lower priced lunch.

In addition, there will be increases for nonfood grants to the States to help equip additional schools now without facilities, more money for State administrative expenses, and grants to the States for seminars and other training programs for managerial workers at all levels.

In the past, training and program evaluation had to be covered out of general administrative funds or neglected entirely. Resources were simply not available to conduct programs that are sorely needed to improve child nutrition activities.

State colleges and universities are now able to make an increasingly val-

uable contribution to Federal-State-local programs, working to help improve research and training for school food service personnel.

I urge you to participate with us and with the food and food service industries in seeking out and trying innovative approaches. Cooperate with the research groups, and come to us with your new ideas and proposals. If they are sound nutritionally and provide an advantage in cost and ease of delivery, let us help you try them out, on a temporary basis at first, to see if they provide the advantage that you anticipate. Our published regulations now permit us to do this.

Then, in time, you and we will be in a better position to modify our school feeding regulations to reflect the reality of nutrition and food science today, and to increase your ability to serve your children better.

These are just some of the innovations that are on the horizon for Child Nutrition in the seventies. There is a big job ahead, starting with the goal of reaching all needy children with free and reduced priced lunches. There is also the important task of continuing to improve the quality of school feeding programs for all children, and to build in training and education that will bring about wide community understanding of good nutrition. It all adds up to a greatly expanded concept of child nutrition programs.

As we look back over the past year, I think we can say that never before has so much been accomplished in such a period to eliminate hunger and malnutrition in this country. And the pace will be picking up in this vitally important program.

School food service is playing a vital role in the Nation's total drive to assure that every American family can have an adequate diet. In partnership with dedicated professionals in State and local governments, I am confident that we will be able to go the full distance toward reaching all the Nation's needy children and adults with the food they need to develop their potential as individuals and citizens. □

The author is Assistant Secretary of Agriculture.



These kids are enjoying cake at a day care center. This cake is fortified so that when served with milk, it meets the requirement for a completely nutritious breakfast or snack.

Lunch Trays may carry Engineered Foods

"COME TO US WITH your new ideas for eliminating malnutrition," Assistant Secretary of Agriculture Richard Lyng urged operators of local school lunch programs at the annual meeting of the American School Food Service Association.

School feeding programs must reflect the reality of nutrition and food science today, he continued. Cooperation among school food service professionals, USDA and food and food service industries is necessary to try out new ideas and find innovative ways to meet our goals of improved nutrition, ease of delivery, and economy.

Recent years have seen notable changes in dietary habits as well as in the nutritional quality of processed foods, Food and Nutrition Service Administrator Edward J. Hekman mentioned in a follow-up meeting with State School Lunch Directors.

In view of these changes, he said USDA is interested in "engineered foods" for school lunches. These are foods that improve nutritive value, reduce cost, offer greater convenience in meal preparation, improve acceptability, or improve stability.

"Fortifying or enriching widely used foods would be considered the preferable type of engineering," Mr. Hekman explained. "In addition any engineering which improves acceptability of a nutritious food and makes it more

convenient to use, is a step toward better nutrition."

In order to achieve improved general nutrition, either through conventional foods or by acceptance of new foods, Administrator Hekman said his agency advocates that these new foods be labeled to effectively show essential nutrients; and that both government and industry continue active educational programs to increase public awareness of the need for essential nutrients.

One opportunity for introducing new foods is through the school lunch program. Mr. Hekman suggested that school authorities consider including engineered foods where good nutrition is provided at lower cost. He pointed out that authority for examining new food opportunities is in the following regulation, published in the Federal Register last January.

"The Child Nutrition Division of the Food and Nutrition Service may approve variations in the food components of the Type A lunch on an experimental or a continuing basis in any school where there is evidence that such variations are nutritionally sound and are necessary to meet ethnic, religious, economic or physical needs."

The FNS Administrator explained that USDA will use the following criteria when considering approval of new or modified foods which schools could buy for use toward meeting

meal requirements or inclusion in commodity distribution programs. The criteria are:

- That the food product be on the market or be intended for the commercial market in a form similar to traditional foods.
- That there be adequate evidence that the new or modified foods contribute to improved nutrition.
- That the new or modified foods be as acceptable and cost the same or less than traditional alternatives.

These guidelines offer school officials a new alternative in their efforts to bring better nutrition to more children. □

USDA announced recently its first approval of specifications for an "engineered food" for school breakfast and other child nutrition programs. Specifications for the item—a fortified baked product with creamed filling—have been supplied to State agencies for voluntary use by schools and service institutions in buying the product. USDA said the schools and service institutions will be reimbursed under the School Breakfast Program and the Special Food Service Program for Children, when the new product is served with milk, either as breakfast or supplemental nutrition during the day.

SOME OF THE NATION'S leading universities are currently testing, tasting, and researching to find new and more effective ways of improving nutrition for the Nation's children.

Food Science departments under USDA contracts are holding the co-operative Federal-State-local National School Lunch and other child food service programs up to the light of research and modern expertise. Every phase of the operation is being thoroughly and scientifically examined and evaluated.

The Food and Nutrition Service has asked the universities to weigh and test the various operations of the school lunch program to see how well it is functioning as a delivery system for adequate child nutrition. The program will be evaluated in view of modern food service systems, public and private, and recommendations will be made as to possible streamlining or improving.

Florida State University began the National School Food Service and Nutrition Education Finance Project, funded by a \$175,000 contract from USDA on June 1, 1969, with five major objectives.

In every case the data collected were focused upon the financial aspects of child nutrition programs.

The aspects scrutinized have included the following:

- Feeding program, including "out-reach" programs such as feeding senior citizens.
- Facilities.
- Personnel.
- Nutrition education.

• Administration and organization. The Florida State project officials report that even without formal analysis, the following conclusions seem warranted:

• Immediate expansion of child nutrition programs is essential.

• Such expansion cannot occur without increased public support, which will require more extensive public information regarding nutrition needs and proposed means of ministering to these needs.

• Unless schools initiate prompt action to feed *all* children (and especially the Nation's needy children) present child nutrition needs may well extend throughout the seventies.

• Increased financial support of school nutrition programs, while not a panacea, is essential to the prompt, efficient, and effective implementation of necessary programs.

• In addition, school feeding programs must be continually responsive to, and utilize to full advantage, appropriate technological advances.

Rutgers University in June 1970 undertook a 2-year contract grant from USDA and the Office of Economic Opportunity to conduct research aimed at improving the effectiveness of school feeding programs. The project is funded by \$150,000 each from USDA and OEO, and \$67,900 from the State of New Jersey. Objectives of the project are to:

• Recommend effective school feeding for no-facility schools.

• Investigate means of improving nutritive value and acceptability of donated commodities in school feed-

ing. Explore use of technical and marketing ingenuity of the U.S. food industry.

• Define ways of using school feeding to promote commercial marketing of nutritionally improved foods.

• Gather management information needed to improve the USDA school feeding program.

North Carolina State University began a 1-year research project on July 1, 1970, to find the most effective ways of promoting the nutritional well-being of children in the public schools. The project is funded by OEO with a portion financed by the university. While USDA is not financially involved in the project, the results will be of interest to the Department.

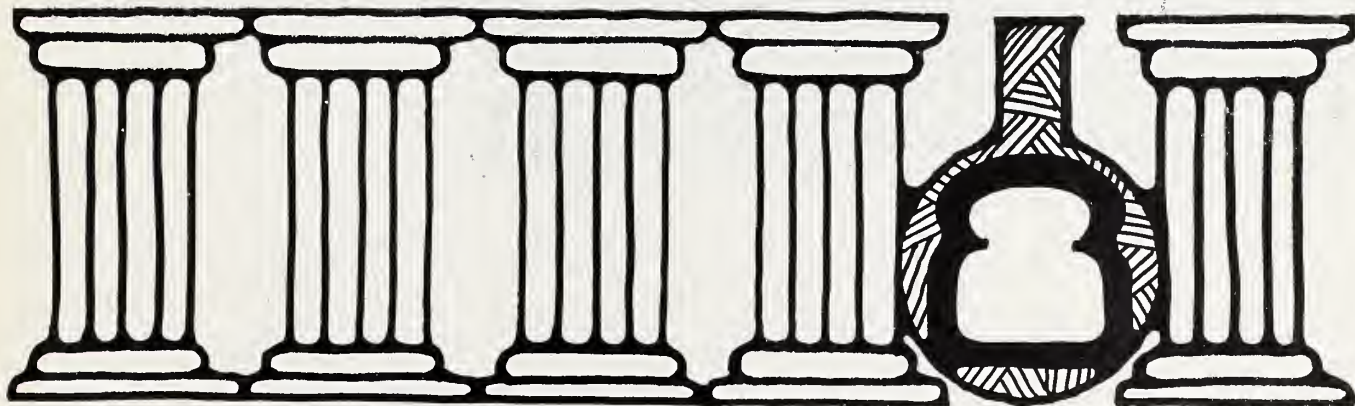
The primary objective of this research program will be carried out by three contributory objectives:

• To test by economic and statistical means the potential cost reductions to the school food program resulting from innovations in purchasing, preparation, transportation and serving.

• To develop methodology for evaluating and improving the nutritional effectiveness and acceptability of school feeding programs, and to test these methods on a pilot scale.

• To test on a pilot scale ways of educating children for healthy eating habits.

With these research findings school food service professionals will be able to expand and improve the delivery, efficiency, and acceptability of Child Nutrition Programs. □



**food science colleges
test lunch program**

signing of new law is major step forward



President Nixon signs child nutrition legislation, P.L. 91-248.

UNIFORM STANDARDS TAKE effect this month under which the Nation's schools and service institutions are to provide federally-assisted free or reduced price meals to needy children.

Public Law 91-248, amending and improving the National School Lunch and the Child Nutrition Acts, was enacted last May and received impetus and direction from the 1969 White

House Conference on Food, Nutrition and Health.

The law makes use of the income poverty guidelines by schools to determine which children are entitled to free and reduced price lunches mandatory January 1, 1971.

These are some of the major features of the new law:

- Provides for a minimum national

standard, based on family income and size, for determining eligibility of children for free and reduced price meals.

The new income poverty guidelines, (announced by Secretary Hardin August 4, 1970) apply to schools taking part in federally aided school lunch programs and also to the so-called "commodity only" programs which are not in the National School Lunch Program, but receive federally donated foods for their nonprofit food service.

These schools, like the schools in the regular program, will be expected to announce publicly their policies for providing lunches to needy children.

- Sets a maximum of 20 cents that may be charged for the reduced price meals.

- Authorizes State agencies to use Federal funds to help schools in financing all or part of the costs of a school lunch program.

- Calls for Federal appropriations for child nutrition programs to be made a year in advance, and allows within State transfer of funds between authorized school lunch and child nutrition programs.

- Authorizes funds for nutritional training for workers and nutrition education for participants.

- Authorizes increased Federal funds to help the States and schools reach more needy children. Additional resources for the school lunch programs will come from the State matching funds requirement, starting in fiscal year 1972.

- Establishes a 13-member National Advisory Council on Child Nutrition, to be appointed by the Secretary of Agriculture.

The council, whose members will serve without compensation except for travel and expenses, is to make a continuing study of the operations of federally assisted child feeding programs.

The President emphasized as he signed the new law . . . "The child nutrition programs are cooperative programs which are run by State and local governments, with Federal support. This legislation represents an important Federal effort to improve these programs. I hope that State and local governments will also do all they can to move forward in this critical area." □

049092



bringing a CALM to the Marketing FRONT

By Robert R. Boersma

STORMS ON THE MARKETING front can often be as adverse as those in the sky for tree nut growers and handlers.

So, Federal marketing order programs have been established under the Agricultural Marketing Agreement Act of 1937 to stabilize grower returns and provide better quality nuts for the consumer.

The almond, filbert, and walnut industries each has a program tailored to solve its particular marketing problems.

Let's see how such a marketing order program is established.

Growers and handlers in an industry take the first step by requesting a program, after they have analyzed their marketing problems and have concluded that a program would benefit them.

A public hearing is held on the proposed program and a recommended decision, based on the evidence, is pre-

pared by USDA. Anyone interested has a chance to file written comments.

USDA then issues a final decision, and producers vote on it, with a two-thirds majority of those voting needed to start the program.

A board, composed of growers and handlers, is nominated by the industry, and appointed by the Secretary of Agriculture to administer the program. Specialists in C&MS' Fruit and Vegetable Division make sure the program operates in the public interest and within legal bounds.

The board adopts a marketing policy for the season and recommends appropriate regulations on the volume of the crop to be marketed. These recommendations are based on the carryover of the commodity from the previous year, the domestic need, and a complete review of all other marketing factors. USDA then issues volume regulations based on these recommendations.

The marketing order programs for filberts, walnuts, and almonds are basically alike. Each provides for volume regulations to allocate supplies to processing outlets in an orderly fashion.

The walnut and filbert orders also provide for grade regulations to aid both the grower and consumer by keeping low quality nuts off the market. The marketing order programs are intended to keep supply and demand in balance and to develop new markets.

The earliest tree nut program was established in 1933 for walnuts. It came about because handlers wanted to sell to the "inshell" nut trade, which was more profitable than the shelling and export outlets.

However, since there was not enough inshell nut business to go around, price cutting and instability reduced the total returns and discouraged market expansion.

The early walnut marketing program was designed to solve these problems. It allocated walnuts not needed by the inshell trade to shelling outlets and prohibited shipment of low quality walnuts to the inshell market. It also required that walnuts be graded to provide a uniform basis for pricing.

In the early years of the program, about 35,000 tons of walnuts were sold inshell annually. Domestic use of in-

shell walnuts is now down to about 25,000 tons. In the same period, however, use of shelled walnuts has increased from less than 5 to about 50 million pounds annually.

The industry has amended its program several times to adjust for these and other changes. Walnuts not needed for the domestic shelled and inshell markets are now allocated to export or walnut oil markets under the walnut program.

The program covers walnuts grown in California, Washington, and Oregon. When it began in 1933, about 75 percent of the production was in Southern California. Since then, production has moved northward, and the southern part of the State accounted for less than 5 percent of the 1969 production of 105,500 tons.

The almond marketing order program, started in 1950, covers California, where almonds are solely grown. It was needed in order to bolster grower returns by balancing supplies with demand. U.S. production was increasing, while large quantities of almonds were being imported.

No significant export almond market existed before the order was put into effect. Since then, the U.S. has become the world's largest almond exporter.

By stabilizing prices paid to growers and handlers from season to season, the order has aided the industry in expanding and finding new markets. Production in 1969 is estimated at 122,000 tons.

The filbert marketing order program, established in 1949, covers filberts produced in Oregon and Washington. It was needed because growers were producing more filberts than could be profitably marketed inshell.

An allocation provision limits the quantity of filberts which can be sold inshell. The remainder of the crop is used for export or shelling. Filbert production in 1969 was 7,400 tons.

Federal marketing orders have helped add stability to these industries through more orderly marketing of high quality products. □

The author is Head, Program Analysis Section, Specialty Crops Branch, Fruit and Vegetable Division, C&MS, USDA.

Livestock Division staff member (right) explains some of the Management procedures of the Meat Grading Branch. Trainees (bottom) talk over market news reporting with the assistant training officer. Trainee Barry Scales (far right) reflects the intensity of the program as he examines standards.



THE LIVESTOCK BUSINESS

a challenge to the new trainees

C49C93

By C. Lowell Strong



IN SAN FRANCISCO, a young lady is going through a meat cooler, sizing up the quality of the beef carcasses hung row on row, and applying a shield-shaped stamp indicating "USDA Prime" or "USDA Choice."

And in Texas, a young man sits in an auction market, listening to the auctioneer's chant. As he listens, he writes down the prices the feeder steers are selling for, their weights, his estimate of the quality grade, and how sales are going.

Both of these people are trainees in the business of supplying the information necessary to the everyday miracle of transforming livestock on the farm and feedlot into meat on the Nation's dinner tables.

Each year one or two new groups

of young men—and nowadays young women, too—sign on as trainees to become USDA meat graders or livestock and meat market news reporters.

One of the first things they learn is the importance of the meat grading and market news services.

Simply stated, graders are responsible for determining the quality and yield grades of a large proportion of the Nation's meat supply.

The food shopper relies on the USDA grade shield as a guide to meat quality. Both the quality and yield grades provide the basis for trade between the retail store and the meat packer and the meat packer and the feedlot operator.

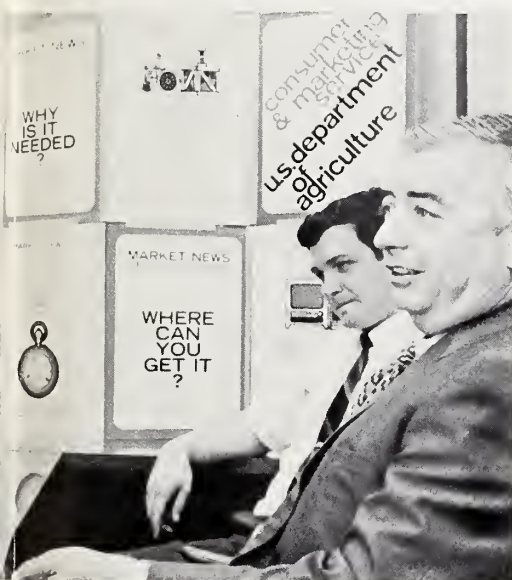
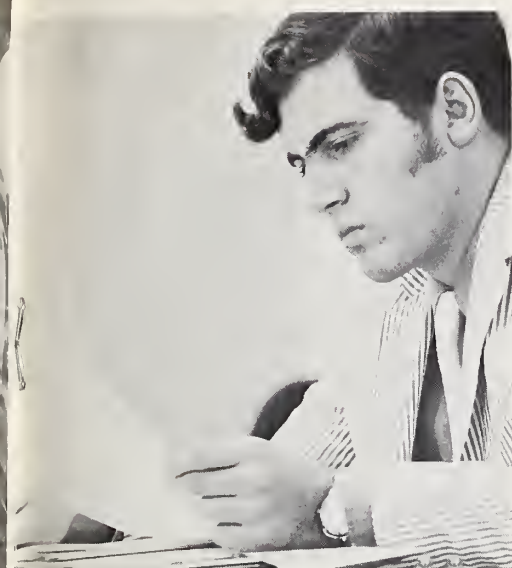
Market news reporters convey vital information on nationwide buying and

selling trends that affect the marketing of livestock and meat and, ultimately, the price the consumer pays.

Both the grading and reporting functions are important to efficient and orderly marketing in the multi-billion dollar meat business. Livestock accounts for the largest share of farm income—some \$13 billion last year. And the food shopper spends more for meat than for any other one product—about 30 cents out of every food dollar.

So information on the quality, price, supply, and demand for livestock and meat is important to everybody. Providing that information nationwide is the business of the Consumer and Marketing Service's Livestock Division.

The Division's meat grading and



market news services employ some 400 meat graders and 75 market news reporters, and station them across the country—wherever they are needed.

Maintaining a force of this size and keeping it operating efficiently and consistently means constant training and recruiting. The recruiting these days is aimed mainly at the young college graduate. And the lure, in addition to the prospect of a vital, profitable, and interesting job, is a unique and intensive trainee program.

The current trainee group consists of 10 young men and one young woman—most of them recent college graduates. To qualify for the program, the trainee must have the equivalent of a bachelor's degree in animal husbandry or animal science. His de-

gree program must have included work in both livestock and meat judging. Candidates may also qualify through industry experience.

The average age of the 11 trainees now in the course is just over 23. They come from schools from Connecticut to Texas, from Florida to Oregon. Included in the group is the second woman, Nancy Smith, ever to go through the program. The first, Becky Kerr, was a trainee in a 1966 class and recently appeared on the television show "What's My Line?" as USDA's "Lady Meat Grader."

The present group of trainees began their instruction with 2 weeks of study at Ohio State University's campus in Columbus, and at nearby meatpacking and processing houses. Here they learned USDA grade standards and practiced applying them to carcasses and wholesale cuts.

Six weeks at a field station, this time on an individual basis, was the next step in the program. Here each trainee worked closely with resident graders and market news reporters who observed and rated the trainee's performance.

After working at the field stations, the trainees again assembled as a group at the Livestock Division's headquarters in Washington, D.C. A week of seminars there gave the trainees a chance to evaluate and compare their work, meet Livestock Division and C&MS leaders, and learn the role of the Washington offices.

A second field station assignment followed the week in Washington. After training at this station, the trainees met together at Salt Lake City to practice grading meat in packinghouse coolers. Here their progress was reviewed by Washington officials.

A third field station assignment followed the meeting at Salt Lake City. At this station each trainee completed the last 3 months of the program. This was to be the trainee's official station, since he normally would assume regular duties there following training.

Another group meeting, to work together in packinghouse coolers, is held near the end of the training program. This gives headquarters supervisors an opportunity to make a final evaluation of the trainees' progress. The local supervisor also must recom-

mend that the trainee is ready for promotion.

Over the years most trainees have satisfactorily completed the program. Regular bi-weekly progress reports from supervisors give an opportunity to spot any problem area developing so that it can be corrected promptly.

Before the training program began in 1954, most new technical employees in the Livestock Division were hired from industry. They had gained appropriate work experience in duties similar to those of graders or market news reporters.

For several years employment needs were met through both the training program and recruiting from industry. Recently, however, practically all new employees have come into the Livestock Division through the training program.

There have been 22 groups of trainees since the training program began 17 years ago. For a number of years the program was used only for meat graders. Market news reporters were trained in a separate but similar program. But during the past 5 years, there has been a single training program for both graders and reporters.

Most trainees still become meat graders but some go into the market news field. For instance, Becky Kerr became a meat grader. Her husband, Robert, who went through training with her, became a market reporter.

Former trainees have advanced to responsible positions in the Livestock Division and elsewhere. They work as managers, supervisors, and as program specialists in food purchasing, market analysis, and in developing grade standards.

Of nearly 300 trainees who entered the regular program and the separate market news program over the years, more than 65 percent still work in the Livestock Division.

The Livestock Division trainee program aims at making its graduates not only good USDA employees, but also thoroughly competent to provide the services relied upon by all those who buy and sell livestock and meat, from producer to consumer. □

The author is Assistant to the Director, Livestock Division, C&MS, USDA.

049094

MATCHING FUNDS**HELP EGG MARKET EXPAND**

By George Goldsborough

HANK STEVENS is a long-time egg producer in Connecticut. But like everyone else, Hank is experiencing the high cost of living and a squeeze on profits.

He is also facing increasing competition from egg producers in other sections of the country, and to make matters worse, people are eating fewer eggs. As a result, Hank and others like him are having difficulty selling eggs.

Several miles down the road is Fred Peters, manager of a large retail food store. Fred is also feeling the profit squeeze.

He has a large clientele and dollar sales are good, but the increasing cost of running a large grocery store is making it more difficult to keep his store "in the black." Fred needs to find a way to increase his store's profits.

Hank and Fred are about to get some help. Eleven Northeastern State Departments of Agriculture are joining hands with USDA's Consumer and Marketing Service to help expand the market for eggs produced in the Northeast.

Before this project is over, Hank and Fred will not only be getting help for themselves, they will be working together to help each other.

Consumers will benefit from the assurance of a consistent supply of eggs—a protein-rich food—at reasonable cost. Figured on the cost per pound (one dozen large eggs weighs 24 ounces or 1½ pounds), eggs can supply some of the needed protein in diets at very reasonable cost. For example, if a dozen large eggs costs 60 cents, that's only 40 cents per pound.

This joint Federal-State project—assisted by C&MS' Matching Fund

Program—will help show retailers that eggs are an important part of their operations.

As the name "matching fund" implies, the joint project will be financed with Federal and State funds plus a contribution from the North East Egg Marketing Association.

Let's look at Fred Peters, our manager, again. Of the more than 7,000 items he sells, eggs provide one of the highest profit margins per foot of display. They can account for more than 2 percent of total store sales.

There is only one problem: Fred Peters is not aware of these facts. Many retailers are not, according to a recent survey. The Federal-State matching fund project now getting underway will help correct this information gap as part of a concerted effort to increase egg sales.

Stimulating retailers to buy and sell more eggs will, in turn, help producers like Hank Stevens. Many, like Hank, are in an area where they have trouble finding a dependable market for their eggs. Competition from heavier producing areas has made the marketing of shell eggs produced in the Northeast no easy task.

Agricultural marketing agencies in the eleven Northeastern States have long recognized the problems encountered by the Fred Peters' and Hank Stevens'.

About 4 years ago representatives from all of the State Departments of Agriculture in the Northeast met with officials from C&MS' Matching Fund Program to map out specific plans for expanding egg markets. Now, after many thousands of hours of intensive development work, particularly on the part of New York, the project is going into full effect.

It will:

- Assist egg retailers to increase sales through improved merchandising practices.

- Advise retailers of the sales value of larger and more attractive displays for eggs, the impact of special advertising promotions in the store, and the sales effect of the location of the egg display case.

- Inform retailers of the importance of consistently maintaining high quality eggs through tighter controls on refrigeration in the cooler and display case.

- Improve the income of egg producers by increasing the demand for eggs.

The entire matching fund project is being developed around the use of special visual presentations. With the help of "flip charts," State and industry representatives can "sell" retailers on the profitability of eggs.

The approach, now going into full use in all 11 Northeastern States, has been tested on a limited basis with large retailers. The reception has been enthusiastic. These presentations will also be made to egg processors, wholesalers, and brokers servicing retail accounts.

The "flip chart" will serve as the basis for additional visual aids—including slides, filmstrips, and other charts—which, in turn, can become valuable tools for supplemental phases of the program.

It is hoped that this regional approach to marketing can be adapted to other areas of the country and to other commodities.

For now, at least, Hank Stevens and Fred Peters are already beginning to receive help from this program. □

The author is Director, Matching Fund Program, C&MS, USDA.

ENDER ASPARAGUS, accented with a pat of sweet, creamy butter or tart hollandaise sauce. Sound good?

If it does, you can count yourself among the many people who look to asparagus for a delicious life to any meal. Not only is asparagus tasty, but it also contains a wealth of vitamins.

The different canned and frozen styles and types let you add variety to your menu. On your grocer's shelf or in the frozen food section, you'll find spears, tips, points, and cut spears or cuts and tips.

The greatest demand is for all-green asparagus, which is available both canned and frozen. White asparagus and white asparagus with green tips are usually canned only.

White asparagus is a delicacy produced by mounding dirt around the asparagus plant, so that the stalk develops underground. It may cost more than the other types of asparagus, but it adds a fancy touch to that special luncheon or party menu.

Asparagus is more expensive than other vegetables because much of the harvesting and preparation for processing is done by hand. Asparagus packers put their product through a very complex process in an attempt to guarantee the consumer fine quality and flavor.

To help insure high quality, USDA's Consumer and Marketing Service has established grade standards for processors to follow in packing both frozen and canned asparagus. In addition to these standards, C&MS also offers voluntary inspection and grading services, including a continuous inspection service, to certify the quality of processed asparagus.

Under the continuous inspection service, inspectors with C&MS' Fruit & Vegetable Division check all preparation and processing operations and test the quality of the asparagus after packing.

Asparagus packed under this continuous inspection may carry the U.S. grade name or shield indicating its quality.

U.S. Grade A or Fancy asparagus spears are probably the most expensive, but they make the most attractive servings, either as a hot vegetable or in a cold salad.

Grade A canned or frozen asparagus must have an attractive appearance and be practically free from defects. The color must be bright and uniform, the heads must be tight, and the spears free from tough fibers.

U.S. Grade B or Extra Standard asparagus, in cut styles, is a better buy when appearance is not impor-

tant. You could use it in cream sauce or in soups, for example. Grade B asparagus must be of good quality with a reasonably attractive appearance. All graded asparagus, regardless of grade, must have a good flavor and aroma.

Use of the U.S. grade standards and inspection service is voluntary and paid for by the user. But most canned and frozen vegetables, including asparagus, are packed and priced according to their quality even though a grade is not shown on the label.

Sometimes the grade name is given without the "U.S." in front of it—for example, "Fancy" or "Grade A." A canned or frozen vegetable with this designation must measure up to the quality stated, even though it has not been officially inspected for grade.

If you would like more information on asparagus (and other canned and frozen vegetables), write for the free booklet, "How to Buy Canned and Frozen Vegetables." Send your post card request to the Office of Information, U.S. Department of Agriculture, Washington, D. C. 20250. Please use your ZIP code. ☐

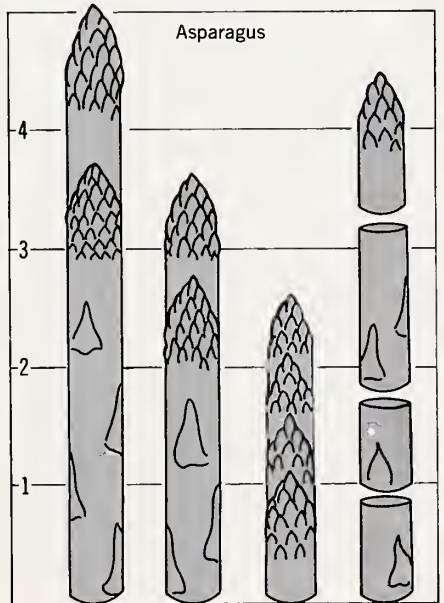
The author is Deputy Director, Fruit and Vegetable Division, C&MS, USDA.



A plant worker selects asparagus as it moves by on a conveyor belt. The spears are hand packed in cartons according to size and grade.

ASPARAGUS TIPS

By Fitzhugh L. Southerland



USDA inspectors measure the size of frozen asparagus. Uniformity of size is one factor considered in grading.

Interstate traders in the produce industry are required by this law to have a license issued by USDA. If the Act is violated, USDA is authorized to suspend or revoke a trader's license.

If such a trader then seeks employment with a licensed firm during the period of suspension or revocation, his employer should take certain precautions.

Any employer in the produce trading industry who wants to hire a person who was responsibly connected with a firm which has failed to pay a reparation award (a claim for damages owed to a complaining firm) must comply with specific PAC Act requirements.

The Act requires that such employers post a satisfactory bond and obtain approval from the Fruit and Vegetable Division of USDA's Consumer and Marketing Service. This restriction on employment extends for 2 years from the date of the last unpaid reparation award.

If a firm's license is revoked, or if the firm is found to have committed repeated and flagrant violations of the Act, any person responsibly connected with that firm may not be employed for a 1-year period by another licensee. After 1 year such a person may be employed by another licensee, if the employing firm files a satisfactory surety bond with USDA and obtains approval of that employment from USDA.

The purpose of the bond is to give some assurance of financial protection to members of the industry in case the employing firm should get into trouble under the PAC Act.

For example, a firm was recently required to furnish a \$10,000 employment bond to enable it to employ a produce department manager who had previously been responsibly connected with a firm which had violated the Act.

The bond can be drawn upon in the event the employing firm fails to pay a reparation award issued against it during the period the bond is in effect.

These provisions under the PAC Act are designed to provide extra protection to those in the produce marketing industry against unscrupulous individuals, and to encourage fair trading practices across the Nation. □



plentiful foods for January

PORK AND APPLESAUCE highlight the January list of plentiful foods. These two foods are always popular go-togethers, particularly on wintry days.

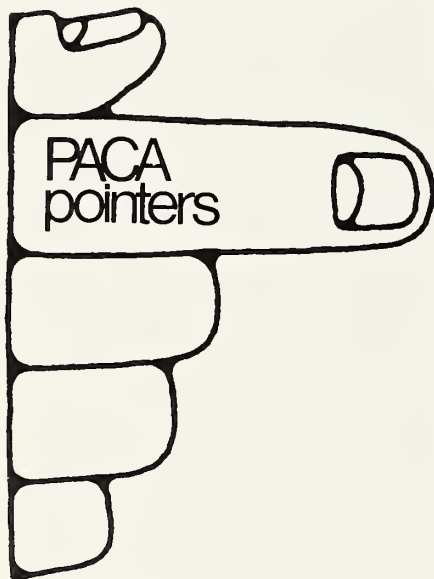
Other plentifuls on the list are fresh apples from the big fall harvest, apple juice, fresh oranges, frozen concentrated orange juice, canned orange juice, fresh grapefruit, canned grapefruit juice, fresh potatoes, onions and dry peas.

Every month the C&MS Plentiful Foods list serves as a guide to those foods in most abundant supply. And plentiful foods often mean budget-saving prices for thrifty homemakers. □

Consumers- do you know?

THE WAY YOU WRAP MEAT and poultry for storage is important in maintaining wholesomeness. USDA's meat and poultry inspectors advise that you wrap products loosely for refrigerator storage, but tightly for freezer storage. Also, always wrap meat or poultry items for freezing in a moisture-resistant material, such as aluminum foil or freezer paper.

You can refreeze meats and poultry if they still contain ice crystals or if they are still cold and haven't been held at refrigerator temperatures longer than 2 days. Meat and poultry inspectors caution, though, that refreezing can lower product quality. □



IF YOU DEAL in fruits and vegetables, you may not be aware of regulations which affect you under the Perishable Agricultural Commodities Act. Here are some pointers to help you avoid problems.

049C95



By Ralph S. Westcott

A HUGE TRACTOR-TRAILER carrying thousands of pounds of federally inspected meat to market suddenly slams into another truck. The force of the collision knocks out the power for the tractor-trailer refrigeration unit.

To the scene of the accident come a lot of people—police, an emergency rescue team, insurance investigators, and curious spectators. Add to that a compliance officer from USDA's Consumer and Marketing Service whose concern is the wholesomeness of that meat—and your picture's complete.

His job is to see that none of the meat, which passed inspection for wholesomeness before it left the plant, reaches the consuming public unless it is proved still fit for human food. He makes sure that the meat is detained under USDA control until its condition is determined and a decision is made about what to do with it.

Sometimes it is necessary under the authority of a court order to seize unwholesome meat and have it destroyed

for human food purposes. But in many instances the owner of the meat or poultry voluntarily destroys it or treats it with substances so it can't be used for human food.

This was the case recently when a Minnesota plant destroyed 500,000 pounds of frozen turkeys and turkey parts which had been stored in a freezer warehouse struck by a severe fire. The owner of the turkeys decided to voluntarily destroy them after a compliance officer had them detained at another freezer warehouse.

Often the initial check by C&MS on a detained product reveals that it need only pass reinspection before it can re-enter normal marketing channels. Sometimes such meat or poultry can be reconditioned and allowed to leave the plant bearing the official USDA inspection mark.

Sometimes, though, part or all of the meat or poultry is condemned during reinspection, as was the case recently in New Jersey. A C&MS com-

pliance officer suspected that a 38,805-pound shipment of hams was spoiled and detained it immediately. When the meat was reinspected, 6,780 pounds were condemned.

Meat and poultry products may also be detained whenever they are suspected of being in violation of Federal law or regulations after leaving the plant. It is, for example, illegal to sell or transport nonfederally inspected meat or poultry in interstate commerce.

When C&MS learned that 408 pounds of nonfederally inspected hot dogs had been shipped from New York to a small concession stand in another State, a detention tag was placed on the meat until it could be returned to its original plant with the approval of appropriate State officials.

It is also illegal for poultry and meat to cross State lines without approved, truthful labeling. For instance, a C&MS compliance officer recently detained 26,131 pounds of mislabeled boneless beef, until the labeling was corrected. It was imported beef bearing illegible import brands.

Meat or poultry can also be detained when C&MS suspects that it has been stamped with a forged inspection mark . . . that it was produced in an inspected plant during off-hours when no inspector was present . . . or that the inspection mark was stamped on the product illegally.

For tracing such violations, C&MS employs 35 compliance officers who are supervised by eight area officers-in-charge. These men are supported by administrative and management personnel in Washington, D.C. and elsewhere.

Their efforts resulted in the detention of more than 19 million pounds of meat and poultry during the fiscal year ending June 30, 1970. Some of these products were in lots as small as 17 pounds, some in lots as large as 500,000 pounds.

But whether the violation is large or small, C&MS compliance officers track it down to help assure you that only wholesome meat and poultry move through the marketplace. □

The author is a staff assistant for compliance, Compliance and Evaluation Staff, C&MS, USDA.

FOOD PROCESSING PLANTS must be kept clean. Water in these plants must be pure. Machines must be lubricated.

These elementary principles of sanitation and physics have special significance to a group of USDA experts. This group of chemists must authorize in advance all substances such as cleansers, water purifiers, and lubricants which will be used in federally inspected meat and poultry plants.

The team is part of the Consumer and Marketing Service, the agency which administers the meat and poultry inspection program. Under it, C&MS inspectors permit the use of only authorized materials in the plants they inspect.

This specialized team of chemists receives each month about 300 application from manufacturers for evaluation of various compounds. Most of the substances are cleaning agents—although many water treatment compounds, machine lubricants and other chemicals are submitted for evaluation.

Basically, a manufacturer must submit a complete formula, a sample, and a package label of the compound for review by the team.

In checking each substance, the chemists' prime concern is whether it will be safe for use in a meat or poultry plant. The chemists know that the substance is not intended for contact with a food product, but at the same time they look to the possibility of accidental contact.

C&MS inspection regulations, for example, require that meat and poultry plants be free of peeling paint. But as an extra safeguard, the chemists make sure paint to be used in a plant is nontoxic, in case it accidentally flakes off onto a product.

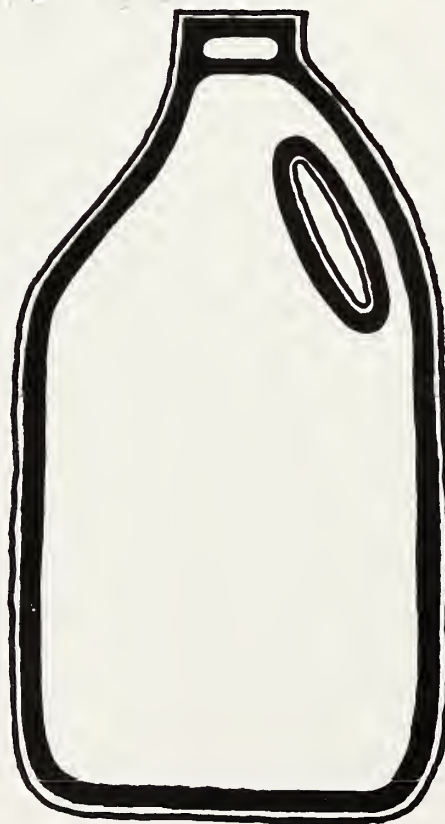
C&MS equipment experts make sure that machines used in federally inspected plants are designed to keep lubricants away from the food products. For additional protection, the chemists make sure lubricants are safe (lead-free for example), so that food is not poisoned in case of some accident with a machine.

Cleaning agents, although used only on walls or floors, must also be safe. The chemists determine whether the

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chemists scrutinize nonfood materials

By Donald Derr



cleaning agents emit an odor strong enough to mask unsanitary conditions in the plant. Cleaning agents containing pine oil, for example, are not approved.

Cleaning agents, especially drain cleaners, containing enzymes are also closely scrutinized. Microbiologists make certain that there will be no chance of bacterial contamination when these cleaners are used in the plants.

In addition to samples submitted by manufacturers of these compounds, the chemists also analyze samples sent in by inspectors in the field who may want confirmation of the safety of an agent being used in a specific plant.

C&MS makes no evaluation of a compound's effectiveness to do its intended job. Rather, the inquiry is limited to safety.

When a sample arrives at the C&MS laboratory in Beltsville, Md., the formula, label, and sample are examined by a chemist. In certain instances a thorough laboratory analysis is conducted if the chemist needs a more complete safety check.

Once a compound is authorized for use, the manufacturer is notified by letter and the substance is added to the official list of authorized chemical compounds, which is published twice a year by C&MS.

In authorizing the compounds for use in Federal plants, chemists are guided by regulations from C&MS, the U.S. Public Health Service, and USDA's Agricultural Research Service.

As the States develop meat and poultry inspection programs equal to the Federal system, they, too, will have to include a plan for permitting only safe chemicals in plants under their supervision. The Federal inspection system covers meat and poultry products which move across State lines or U.S. borders.

The Federal and State systems for clearing nonfood compounds are additional elements in the program to provide total protection to the Nation's meat and poultry supply. □

The author is a chemist with the Meat and Poultry Inspection Program, C&MS, USDA.

"Pooled-Sample" plan may eliminate Trichinosis

By Dr. Delvin E. Zinter

MOST CONSUMERS KNOW they should cook pork thoroughly. Many also know why they should—to destroy any trichinae that might be present.

Today, about 99.8 percent of all pork produced in the United States is trichina free, due in large measure to modern farming practices and hog feeding laws. But what about the other 0.2 percent?

In 1969, the U.S. Public Health Service had 192 reported cases of trichinosis. These were mostly due to people eating pork not thoroughly cooked or cured.

So even though the rate of infection is at an all-time low, you should still cook pork products all the way through to be absolutely safe.

Federal meat inspection regulations, administered by USDA's Consumer and Marketing Service, contain certain requirements for pork products that are not usually cooked before eating.

This group includes sausages such as salami and pepperoni, dried-cured hams, smoked sausage and many specialty items. Such meats are either heated enough during processing, cured for a long enough period of time, or, in some cases, frozen.

Regulations require meat animals to be inspected for wholesomeness before and after slaughter, and set sanitation requirements for the processing operation. However, there are no regulations requiring the destruction of trichinae in fresh pork products.

Cooking pork to kill trichinae is a

remedy and not a solution to this food-borne disease. C&MS, in cooperation with the leading meat interests, is working on a project which may virtually eliminate trichinosis.

It's called the "pooled-sample" method, and was developed by Dr. W. J. Zimmermann of the Veterinary Medical Research Institute, Ames Iowa. This method provides an efficient, economical means of testing carcasses specifically for trichinae. The testing would be in addition to the regular inspection.

This pooled method utilizes an artificial digestion technique to detect trichinosis. During 1968 and 1969 it was subjected to an extensive field trial at a major slaughterhouse in the Midwest.

Results of the trial showed that the method would exceed the accepted standards of accuracy for detecting trichinae infections that could cause illness in humans.

Trichinae are usually found in the form of cysts in the muscle of pork animals. This technique artificially induces the digestion of meat. The meat is chemically broken down to see if any trichinae are present.

The meat to be tested and digested is acquired by taking a 5- to 7-gram sample of diaphragm muscle from each hog carcass. These samples are then pooled into lots of 20, and the corresponding carcasses are given a lot number identical with the pooled sample number.

Each pooled lot is ground and di-

gested in an incubator at 100-105° F. The samples are then placed in a solution of pepsin and hydrochloric acid, which dissolves the meat but does not harm the trichinae.

The digested meat solution then passes through a series of filters. The final sediment is drawn off and examined under a microscope. If trichinae are present, they appear as small, frequently moving larvae in the clear, amber digestive fluid.

When a positive pooled sample is found, the corresponding lot of carcasses is located and retained for an extra day. From each carcass a much larger sample, approximately 50 grams, is collected.

These samples are run individually to find which hog carcass is affected. The carcass is then treated to kill the trichinae, and the rest of the lot is released.

In the pilot study, as many as 3,600 hogs were examined per day without interfering with the normal workflow of the plant. Over an 8-month period, 482,393 hogs were examined. A total of 42 trichinous hogs were detected, with various degrees of infection.

The success of the pilot test provides hope that the pooled-sample method can be employed in a reliable, practical, and economical program for eradicating trichinosis. Such a goal has long been sought. □

The author is a laboratory staff officer with the Meat and Poultry Inspection Program, C&MS, USDA.

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COVER STORY

President Nixon has signed new legislation emphasizing that the school lunch program be available for all children. Pages 2 & 6.

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